

GATA-1 (H-200): sc-13053



The Power to Question

BACKGROUND

Members of the GATA family share a conserved zinc finger DNA-binding domain and are capable of binding the WGATAR consensus sequence. GATA-1 is erythroid-specific and is responsible for the regulated transcription of erythroid genes. It is an essential component in the generation of the erythroid lineage. GATA-2 is expressed in embryonic brain and liver, HeLa and endothelial cells, as well as erythroid cells. Studies with a modified GATA consensus sequence, AGATCTTA, have shown that GATA-2 and GATA-3 recognize this mutated consensus while GATA-1 has poor recognition of this sequence. This indicates broader regulatory capabilities of GATA-2 and GATA-3 than GATA-1. GATA-3 is highly expressed in T lymphocytes. GATA-4, GATA-5 and GATA-6 comprise a subfamily of transcription factors. GATA-4 and GATA-6 are found in heart, pancreas and ovary; lung and liver tissues exhibit GATA-6, but not GATA-4, expression. GATA-5 expression has been observed in differentiated heart and gut tissues and is present throughout the course of development in the heart. Although expression patterns of the various GATA transcription factors may overlap, it is not yet apparent how the GATA factors are able to discriminate in binding their appropriate target sites.

CHROMOSOMAL LOCATION

Genetic locus: GATA1 (human) mapping to Xp11.23; Gata1 (mouse) mapping to X A1.1.

SOURCE

GATA-1 (H-200) is a rabbit polyclonal antibody raised against amino acids 1-200 of GATA-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-13053 X, 200 µg/0.1 ml.

APPLICATIONS

GATA-1 (H-200) is recommended for detection of GATA-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GATA-1 (H-200) is also recommended for detection of GATA-1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for GATA-1 siRNA (h): sc-29330, GATA-1 siRNA (m): sc-35452, GATA-1 shRNA Plasmid (h): sc-29330-SH, GATA-1 shRNA Plasmid (m): sc-35452-SH, GATA-1 shRNA (h) Lentiviral Particles: sc-29330-V and GATA-1 shRNA (m) Lentiviral Particles: sc-35452-V.

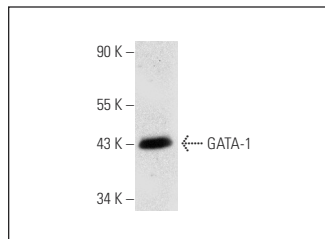
GATA-1 (H-200) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GATA-1: 47 kDa.

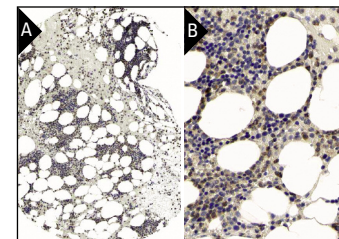
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

DATA



GATA-1 (H-200): sc-13053. Western blot analysis of GATA-1 expression in NIH/3T3 whole cell lysate.



GATA-1 (H-200): sc-13053. Immunoperoxidase staining of formalin fixed, paraffin-embedded human bone marrow tissue showing cytoplasmic staining of poietic cells at low (A) and high (B) magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

- Yu, X., et al. 2005. The long terminal repeat (LTR) of ERV-9 human endogenous retrovirus binds to NF-Y in the assembly of an active LTR enhancer complex NF-Y/MZF1/GATA-2. *J. Biol. Chem.* 280: 35184-35194.
- Escamilla-Del-Arenal, M. and Recillas-Targa, F. 2008. GATA-1 modulates the chromatin structure and activity of the chicken α -globin 3' enhancer. *Mol. Cell. Biol.* 28: 575-586.
- Yao, X., et al. 2009. Role of Stat3 and GATA-1 interactions in γ -globin gene expression. *Exp. Hematol.* 37: 889-900.
- Rincón-Arango, H., et al. 2009. Chicken α -globin switching depends on autonomous silencing of the embryonic π globin gene by epigenetics mechanisms. *J. Cell. Biochem.* 108: 675-687.
- Furlan-Magaril, M., et al. 2009. Sequential chromatin immunoprecipitation protocol: ChIP-reChIP. *Methods Mol. Biol.* 543: 253-266.
- Kim, B.S., et al. 2010. The crucial role of GATA-1 in CCR3 gene transcription: modulated balance by multiple GATA elements in the CCR3 regulatory region. *J. Immunol.* 185: 6866-6875.
- Kyrönlahti, A., et al. 2011. GATA4 regulates Sertoli cell function and fertility in adult male mice. *Mol. Cell. Endocrinol.* 333: 85-95.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **GATA-1 (N6): sc-265** or **GATA-1 (N1): sc-266**, our highly recommended monoclonal alternatives to GATA-1 (H-200). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **GATA-1 (N6): sc-265**.